

REMARKS

Claims 1-3 and 8-10 have been examined. Claims 5-7 and 12-14 have been withdrawn from consideration. By this amendment, Applicants add new independent claims 15-16. Therefore, claims 1-3, 5-10, and 12-16 are all the claims pending in the application.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 2-3 and 9-10 contain allowable subject matter, and would be allowable if rewritten in independent form. However, Applicants respectfully request the Examiner to hold in abeyance such rewriting of the claims until the Examiner has had a chance to reconsider and withdraw the rejection of the other claims.

Specification Objection

The Examiner has objected to the title of the invention. In view of the new title submitted herewith, Applicants respectfully request the Examiner to withdraw the objection.

Claim Rejections - 35 U.S.C. § 102

Claims 1 and 8 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,931,062 to Zhong. For *at least* the following reasons, Applicants respectfully traverse the rejection.

Applicants submit that claims 1 and 8 are not anticipated by Zhong. For example, claim 1 relates to an MPEG video decoding method. The method comprises, *inter alia*:

- *determining whether to perform motion compensation on motion-vector-decoded data or not depending on a value of a decoded motion vector, and*
- *determining whether to perform inverse discrete cosine transformation (IDCT) on motion-compensated data or not depending on a plurality of values of decoded DCT coefficients.*

The Examiner contends that col. 6, lines 1-19 of Zhong disclose the above-noted features of claim 1. Applicants respectfully disagree and submit that Zhong does not disclose each and every one of the above-noted features of claim 1 in as complete detail as set forth in claim 1.

Zhong is directed to a decoding system and a method for proper interpolation for motion compensation (*see* Zhong: Abstract). In the method 200 disclosed by Zhong, a video data stream is initially evaluated to determine whether the video data stream was encoded using field motion compensation or frame motion compensation in step 210 (Zhong: FIGS 1-2, col. 7, lines 8-14). Next, in step 215, field based interpolation is applied to the video data stream if the video data stream was encoded using field motion compensation.

In step 220, “likely local nature of reference frame data” (in the video data stream) is determined based on a vertical component of a decoded motion vector. The determined likely local nature of reference frame data is then used to apply proper interpolation to the reference frame data area in step 225 (Zhong, col. 6, lines 17-27). That is, the vertical component of the decoded motion vector, which the Examiner presumably alleges corresponds to “a value of a decoded motion vector”, can at most be construed as being used to apply the proper interpolation during the motion compensation process. Applicants point out that regardless of the value of the vertical component of the decoded motion vector, motion compensation is always carried out. Only a type of interpolation mode is decided based on the local nature of reference frame data, which was determined in step 220 based on the vertical component of the decoded motion vector.

On the other hand, claim 1 recites *determining **whether** to perform motion compensation* on motion-vector-decoded data or not depending on a value of a decoded motion vector. That is, depending on the value of the decoded motion vector, a determination is made as to whether the

motion compensation on motion-vector-decoded data should even be performed. As discussed above, no such determination is disclosed by Zhong. On the contrary, motion compensation is always carried out in Zhong, and only an interpolation mode during the motion compensation process may change.

Furthermore, there is no disclosure whatsoever in Zhong's method of *determining whether to perform inverse discrete cosine transformation (IDCT) on motion-compensated data or not depending on a plurality of values of decoded DCT coefficients* as set forth in claim 1. Zhong discloses that any input video stream is always inverse discrete cosine transformed by the IDCT device 525 in the decoding loop (Zhong, FIG. 5, and col. 13, lines 57 to col. 14, line 19, where the decoding loop is disclosed, e.g., "From filtering and scaling device 520, IDCT device 525 is supplied with 4 by 4 matrices of coefficients derived from the 8 by 8 matrices of transmitted coefficients. IDCT 525 is arranged to calculate 4 by 4 matrices of output values from the 4 by 4 matrices of input coefficients"). Subsequently, adder 530 generates reconstructed reference frames and stores them in memory device 535 based on the output from the IDCT device 525 and the dynamic motion compensation predictor 550.

As such, Zhong also does not disclose any operation of determining *whether to perform inverse discrete cosine transformation (IDCT) on motion-compensated data or not depending on a plurality of values of decoded DCT coefficients*, since IDCT operations are performed on any input video stream in Zhong unconditionally.

In view of the above, Applicants respectfully submit that Zhong does not disclose, teach, or suggest the above-noted features of claim 1. Therefore, Applicants respectfully request the Examiner to withdraw the 35 U.S.C. § 102(e) rejection of claim 1.

Claim 8 relates to an MPEG video decoder. The MPEG video decoder comprises, *inter alia*:

a motion vector determiner determining whether to perform motion compensation or not depending on a value of a decoded motion vector, and
a DCT coefficient determiner determining whether to perform inverse discrete cosine transform (IDCT) or not depending on a plurality of values of decoded DCT coefficients.

As such, Applicants submit that claim 8 is patentable for reasons similar to those given above with respect to claim 1.

New claims

Applicants submit that new claims 15-16 are also patentable for reasons similar to those given above with respect to claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



Peter A. McKenna
Registration No. 38,551

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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